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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/715,260	11/17/2003	Arun Kwangil Iyengar	YOR920030489US1 (163-17)	4978
24336 7590 03/07/2007 KEUSEY, TUTUNJIAN & BITETTO, P.C. 20 CROSSWAYS PARK NORTH SUITE 210 WOODBURY, NY 11797			EXAMINER PARDO, THUY N	
			ART UNIT 2165	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/07/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

## Office Action Summary

**Application No.**

10/715,260

**Applicant(s)**

IYENGAR ET AL.

**Examiner**

Thuy N. Pardo

**Art Unit**

2165

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 15 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Applicant's Amendment filed on December 15, 2006 in response to Examiner's Office Action has been reviewed. Claims 1-28 are pending in the application. Claims 1, 10, 11, 20 and 21 are independent claims. This Office Action is Final.

2. Claims 1-28 are presented for examination.

#### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 1, 10, 11, 20 and 21, the phrase "should be invalidated" or "to be invalidated" renders the claims indefinite because the claims includes elements not actually disclosed (those encompassed by " should be" or "to be"), thereby rendering the scope of the claim(s) unascertainable. See MPEP § 2173.05(d).

Claims 1, 10, 11, 20 and 21 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. The omitted steps are: what steps occur when the object is not invalidated in storage elements.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 1, 10, 11, 20 and 21 are directed to non-statutory subject matter. These claims are not practical application because they do not produce a useful, concrete and tangible result. See *State Street*, 149 F.3d at 1373-74, 47 USPQ2d at 1601-02. The purpose of this requirement is to limit patent protection to inventions that possess a certain level of "real world" value, as opposed to subject matter that represents nothing more than an idea or concept, or is simply a starting point for future investigation or research (*Brenner v. Manson*, 383 U.S. 519, 528-36, 148 USPQ 689, 693-96 (1966)); *In re Fisher*, 421 F.3d 1365, 76 USPQ2d 1225 (Fed. Cir. 2005); *In re Ziegler*, 992 F.2d 1197, 1200-03, 26 USPQ2d 1600, 1603-06 (Fed. Cir. 1993)).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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4. Claims 1-6, 9-16, 19-26 and 28 are rejected under 35 U.S.C. 103(a) as being obvious over Hasegawa US Patent No. 5,528,511 in view of Kausik et al. (hereinafter "Kausik") US Patent Application No. 2002/0194382.

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). This rejection might also be overcome by showing that the reference is disqualified under 35 U.S.C. 103(c) as prior art in a rejection under 35 U.S.C. 103(a). See MPEP § 706.02(l)(1) and § 706.02(l)(2).

As to claim 1, Hasegawa teaches the invention substantially as claimed, comprising:

in response to a request to update the object, determining a future invalidation time when the object should be invalidated in storage elements currently storing the object [determine delay times, col. 5, lines 50 to col. 6, lines 12; col. 3, lines 36 to col. 4, lines 24; ab]; and

delaying updating the object until the invalidation time has passed [col. 5, lines 43 to col. 6, lines 25].

However, Hasegawa does not explicitly teach storing an object in a plurality of storage elements although it has the same functionality of delay time of verification of modified information. Kausik teaches storing an object in a plurality of storage elements [downloading versions of an object to different URLs, 0062-0068; 0084-0085]. Kausik also teaches creating a modified header for the object comprising an expiry date sufficiently far in the future, 0034].

It would have been obvious to one of ordinary skill in the Data Processing art at the time of the invention to add the feature of Arnold to the system of Hasegawa as an essential means to increase the availability and efficiency of resources for accessing data sources.

As to claim 2, Hasegawa and Kausik teach the invention substantially as claimed. Kausik further teaches serving an object by a storage element only if the invalidation time for the object has not passed [reassign the object to the URL on the basis of their date of modification which is occurred before the expiry date, 0051-0055].

As to claim 3, Hasegawa and Kausik teach the invention substantially as claimed. Kausik further teaches that the system includes a consistency coordinator and the method further comprises steps of: determining the invalidation time using the consistency coordinator and communicating the invalidation time to the storage elements storing the object [0089; ab].

As to claim 4, Hasegawa and Kausik teach the invention substantially as claimed. Kausik further teaches sending, from the consistency coordinator to a storage element and/or from a storage element to the consistency coordinator, heart beat messages to obtain availability information [0025; 0076; 0084; 0089].

As to claim 5, Hasegawa and Kausik teach the invention substantially as claimed. Kausik further teaches declaring an entity expecting a heartbeat down in response to the entity failing to receive a heart beat [0026].

As to claim 6, Hasegawa and Kausik teach the invention substantially as claimed. Hasegawa further teaches sending an acknowledge message, by the storage elements, that the invalidation time has been received [col. 6, lines 50-59].

As to claims 7, 17, Hasegawa and Kausik teach the invention substantially as claimed. Kausik further teaches invalidating all objects that have a current time later than the invalidation time [0025].

As to claim 8, 18 and 27, Hasegawa and Kausik teach the invention substantially as claimed. Kausik further teaches discarding and replacing a current version of an object with a pending-update version if the object has a current time later than the invalidation time [0025]

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As to claim 9, Hasegawa and Kausik teach the invention substantially as claimed. Kausik further teaches that the storage elements include at least one cache [ab; 0017].

As to claims 10-16, 19-26 and 28, all limitations of these claims have been addressed in the analysis of claims 1-9 above, and these claims are rejected on that basis.

5. Applicant's arguments with respect to claims 1-28 have been considered but are moot in view of the new ground(s) of rejection.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy N. Pardo whose telephone number is 571-272-4082. The examiner can normally be reached on Mon-Fri.

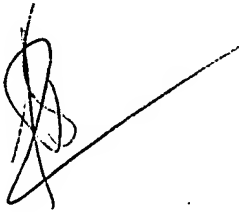
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin can be reached on 571-272-4146. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

March 02, 2007

A handwritten signature in black ink, consisting of a stylized 'T' and 'P' followed by a long horizontal stroke.

**THUY N. PARDO**  
**PRIMARY EXAMINER**